Ethan Gates

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SUMMARY

Computer Science graduate with hands-on experience in AI/ML, full-stack development, and data-intensive applications. Passionate about building intelligent, scalable tools that solve real-world problems.

EDUCATION

Bachelor's degree in Computer Science, Western Governors University
Completed: Feb 2025

CERTIFICATIONS

- ITIL 4 Foundations - November 2023
- Linux Essentials - January 2025

INDEPENDENT PROJECTS – Hosted on my personal website

- **ArXiv Dashboard**: Developed an arXiv explorer with FastAPI + React and RAG-based Q&A (FAISS + Gemini). Deployed backend on Raspberry Pi via Cloudflare tunnel with cron-based DB updates. Cut LLM latency by 83% via async, batching, and vector search optimizations. **[Demo]**
- **News Bias Analyzer**: Built a full-stack ML web app (FastAPI + Next.js) to detect news bias and misinformation. Achieved 74.3% bias classification accuracy and 99.99% fake news detection using OpenAI embeddings and DNNs. **[Demo]**
- **Stock Portfolio Analysis Tool**: Built a full-stack portfolio backtesting app (FastAPI + React) with Dockerized backend deployed on Azure and responsive frontend on Netlify. **[Demo]**
- **Book Recommendation Engine**: Created a recommendation system using OpenAI embeddings on 45K+ book summaries and reviews, with FAISS-powered similarity search. Deployed via Flask (Google Cloud) and React (GitHub Pages). **[Demo]**

TECHNICAL SKILLS

- Programming languages: Python, Java, C#, JavaScript, SQL.
- Tools: Visual Studio Code, PyCharm, Git/GitHub, MySQL, Microsoft Excel, Word, and Power BI.
- Hardware: Experience working with Arduino microcontrollers and Raspberry Pi boards.
- Frameworks and Libraries: React, Spring Boot, NumPy, Matplotlib, Pandas, Tensorflow.

PROFESSIONAL EXPERIENCE

Caregiver, Accra Home Care, Minnesota
09/2022-Present

Developed medication and supply tracking tools in Google Sheets to streamline patient care and daily inventory tasks.

Team Trainer, Chick-Fil-A, Minnesota
05/2021-Present

Conducted onboarding assessments, trained 10+ new hires across multiple roles, and supported performance reviews to improve team readiness and service quality.

EXTRA-CURRICULARS

- UMTYMP: Completed Algebra I & II through UMTYMP, an advanced mathematics program for gifted high school students run by the University of Minnesota.
- National Number Knockout: Won 1st place in the United States in 2017. This math competition tests mental math skills and creative problem-solving abilities.
- Math League: Participated in Math League 2017-2021.